Communicable Disease
UPDATE

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Inside

Epidemiology

Antibiotic Resistance Surveillance

Increasing resistance of common infectious agents to antimicrobial drugs is a major public health concern. A growing number of community-acquired infections is occurring due to bacteria resistant to community prescribed antibiotics. This complicates prescribing decisions and increases morbidity and mortality in individuals infected with pathogens more easily treated in the past.

In order to get a clearer picture of what is happening in Massachusetts, the Epidemiology Program in collaboration with the State Laboratory Institute's Bacteriology Laboratory is initiating a statewide antibiotic resistance surveillance project to monitor resistance trends. Data on selected organisms will be collected from hospital and commercial laboratories throughout the state, initially tracking isolates of *S. pneumoniae* and *S. aureus* obtained from sterile sites, and vancomycin-resistant enterococci. This information will be monitored for trends over time and aggregate data will be summarized and distributed to participating hospitals and laboratories.

The Epidemiology Program will also collaborate with the Division of Medical Assistance, the Research Department of Harvard Pilgrim Health Care and other organizations and agencies on behavioral studies and surveillance programs. Peer leaders will emphasize judicious prescribing practices to physicians and other health care staff. Parents will receive educational materials and information on reducing unnecessary antibiotic use through mailings, pamphlets and videos. Prescribing practices, rates of serious bacterial illness, and rates of resistance in selected organisms will be examined. Studies will assess whether community-wide education and promotion of judicious prescribing practices can lead to a reduction in antibiotic resistance in the community.

Immunization

New All Inactivated Polio Vaccine (IPV) Schedule and New Vaccine Information Statements (VISs)

Based on the progress with global polio eradication and the wish to eliminate the risk of vaccine associated paralytic polio (VAPP), beginning January 1, 2000, the Advisory Committee on Immunization Practices (ACIP) is recommending **an all IPV (inactivated polio vaccine) schedule be implemented in the U.S., replacing the current sequential polio schedule**. The routine all IPV schedule consists of four doses given at ages 2 months, 4

months, 6-18 months, and 4-6 years. Per CDC guidance, the Massachusetts Immunization Program (MIP) stopped distribution of OPV (oral polio vaccine) on December 1, 1999. A limited supply of OPV, for use in certain limited circumstances, will be available by special request directly from the MIP, until existing supplies of OPV are exhausted.

Providers should no longer continue to use the currently stocked *Polio Vaccines* VIS dated 2/1/99, which describes the sequential polio schedule. The Centers for Disease Control and Prevention (CDC) have published two new VISs for polio vaccine, both dated 1/1/2000, which reflect the new recommendations. The new *Polio Vaccine* VIS should be used with each dose of inactivated polio vaccine administered. A supplemental *Oral Polio Vaccine* VIS should also be used only at those rare times when OPV is given.

Supplies of the new *Polio Vaccine* VIS are available at MIP regional offices and local vaccine distributors. Supplies of the *Oral Polio Vaccine* VIS are only available through special request from the MIP regional offices. Copies of the most up to date VISs, including the new polio vaccine VISs can also be downloaded at: http://www.cdc.gov/nip/publications/VIS/default.htm.

Regional Immunization Updates

The Massachusetts Immunization Program (MIP) is planning regional Immunization Update workshops to discuss new vaccines in development; vaccine ordering, storage and handling; new school regulations; and proper documentation of vaccine administration, including the use of the Massachusetts Immunization Information System (MIIS). Each morning workshop will last for three hours. Contact hours for this program will be provided in accordance with the Board of Registration in Nursing regulations governing continuing education (244 CMR 5.00). Watch for an announcement through the mail, with dates in February and March.

Expected Soon: Pneumococcal Conjugate Vaccine for Infants

Streptococcus pneumoniae, also known as the pneumococcus, is a leading cause of bacterial meningitis, sepsis, pneumonia and otitis media in the United States. Worldwide, more than 1.2 million children die each year as result of pneumococcal disease. Emergence of drug-resistant pneumococci has complicated the treatment of pneumococcal infections. In some areas of the U. S., up to 35% of the isolates of this organism are now resistant to penicillin. A new pneumococcal conjugate vaccine has been designed to stimulate immunity in infants and toddlers, who respond poorly to the pneumococcal polysaccharide vaccine currently used in older children and adults.

Conjugate pneumococcal vaccine, Prevenar™ by Wyeth-Lederle, is close to licensure. It contains the 7 serotypes (4,6B. 9V, 14, 18C, 19F, 23F) responsible for 85 % of the invasive pneumococcal disease and up to 22 % of the otitis media that occur in young children nationwide. According to a study done several years ago in Massachusetts, this 7-valent pneumococcal conjugate vaccine (PCV7) may protect against as many as 95% of the serotypes causing invasive pneumococcal disease in children under 5 years of age (Loughlin, et al., American Journal of Public Health 1995;55:392-394.). The table below summarizes the estimated burden of pneumococcal disease in young children, nationwide and in Massachusetts.

A clinical trial involving close to 38,000 young children enrolled in a large HMO found PCV7 to be 100% protective against invasive disease (including meningitis, bacteremia and sepsis); 73% protective against pneumonia (x-ray-confirmed with consolidation of $\geq$ 2.5 cm); and 10-22% protective against all causes of otitis media (Black. Presented at APS SPR meeting, May 7, 1999, San Francisco; abstr 941.)

At its October 1999 meeting, the Advisory Committee on Immunization Practices (ACIP) reviewed some preliminary recommendations regarding the use of PCV7 in children less than 5 years of age. The schedule for routine immunization of infants will consist of a 4-dose series to be given at 2, 4 and 6 months of age, with a booster at 12-15 months of age. Catch-up immunization schedules requiring fewer doses are being developed for older children through 59 months of age. Because resources and logistical constraints may limit the availability of this vaccine, the ACIP is developing guidelines for prioritization of its use in those groups at highest risk for acquiring pneumococcal disease and experiencing complications.

It is anticipated that PCV7 will be approved some time in early 2000. The Massachusetts Immunization Program (MIP) is currently seeking funding to make this vaccine available in a timely manner. We will keep health care providers informed about the licensure of PCV7 vaccine and when distribution will begin. If you have any questions about PCV7, please call the MIP at 617-983-6800.

Disease Associated with *Streptococcus pneumoniae* in Children Under 5 years of Age			
Clinical Presentation	**U.S. (cases/year)**	**MA (cases/year)**	**Complications**
Meningitis	750	15	10-20% mortality, brain damage
Bacteremia	15,250	305	20% mortality
Pneumonia	33,750	675	5% mortality
Otitis Media*	7,000,000	140,000	hearing loss, cognitive impairment

* Up to 35% caused by *Streptococcus pneumoniae*

STD

Eliminating syphilis in Massachusetts

In Massachusetts, primary and secondary syphilis are at record lows (<100 cases expected in 1999) since reporting began in 1918. Nationally, 50% of primary and secondary syphilis is reported from less than 1% of counties (28/3200). The disease is highly localized in the South and in some major cities.

To further reduce syphilis incidence, we must intensify case finding and expand screening in higher-risk groups, such as inmates of jails and prisons. The Division of STD Prevention has received CDC funding to collaborate with the Suffolk County Jail and the Boston Public Health Commission to increase syphilis screening and case finding among the inmates and detainees. There also will be a series of regional meetings with community and professional leaders to obtain advice and establish partnerships for other approaches to achieve syphilis elimination. An advisory group will be established for sustained guidance.

Violence against women and the risk of sexually transmitted disease (STD)

The Advisory Group on Sexually Transmitted Disease and Women's Health, which provides policy and activity guidance to the Division of STD Prevention, had recommended that the Division explore the relationship between violence and STD risk among women.

Assessments conducted between 1997-1999 revealed a high level of violence experienced by female clients of STD clinics. Twenty seven per cent of women in community-based clinics reported experiencing unwanted sex during their lifetime, with half-reporting first occurrence at or before 13 years of age. This number rose to 54% in a prison-based STD clinic, with half of the abuse occurring at or before 10 years of age. In addition, 26% of women attending the community-based clinics and 66% of women in the prison-based clinic reported experiencing partner violence.

These data demonstrate the important role association violence, especially sexual abuse in childhood, has for STD risk. Surveyed women indicated a strong interest in receiving mental health counseling and supportive services either on-site or through referral. They also felt that such services would be helpful in addressing their STD risk.

Several new initiatives have been launched as a result of these data. Division and STD clinic staff have been collaborating in review of current practices regarding violence screening, assessment and referral. Although a number of clinics currently provide screening and referral, there are no formal protocols. A set of standard screening questions have been developed and are under review. Clinics will be assisted in developing resources for referral before a formal protocol is implemented.

Because of the results of the clinic surveys, the Advisory Group convened a special meeting to write a position paper on the relationship of violence and sexual health. It will contain recommendations regarding the work of the Department and other community agencies and groups.

The STD/HIV Prevention Training Center of New England

The STD/HIV Prevention Training Center (PTC) of New England, a project of the Division of Sexually Transmitted Disease (STD) Prevention of the Massachusetts Department of Public Health and the Centers for Disease Control and Prevention (CDC), was established in 1995. This was the first center to serve the New England region (Public Health Region I). It is part of a coalition of ten CDC-funded centers.

The mission of the PTC is the process of continuing education courses in prevention and management of STDs to health care providers throughout New England. In order to achieve this, the PTC works closely with the STD programs of Region I states, as well as with many health care organizations.

The PTC offers experiential courses in the management of STDs for clinicians in practice. These three day courses are held in the Massachusetts General Hospital Genital Infectious Disease Clinic and the Boston Medical Center STD Clinic. A home study module is sent to participant's four weeks in advance to review state-of-the-art information on the prevention, diagnosis and treatment of STDs.

Since inception, the PTC has trained more than 200 medical providers in its three-day courses. In addition, the PTC offers hands-on laboratory courses to increase skills in interpreting stained smears, wet preparations and syphilis serology. More than 300 laboratorians and clinicians have attended these courses. The PTC also offers an annual five-day course for infectious disease fellows.

Ten satellite broadcast programs have been downlinked throughout New England (four of which were produced by the PTC) covering topics such as herpes simplex virus infections, new laboratory diagnostic technologies for the identification of chlamydia and gonorrhea and STD prevention counseling. More than 3000 clinicians have attended these programs over five years. In an effort to meet the needs of providers, the PTC is in the final phase of developing a self-study module on sexual history taking and STD screening recommendations, a videotape on the female pelvic examination and a videotape on wet preparation microscopy skills. In the fall of 1999, more than 150 clinicians participated in the first regional telephone conference. Experts from the University of Washington discussed the new type-specific herpes simplex virus (HSV) serologic tests. As we enter the 21st century, the PTC hopes to continue its innovative efforts to offer continuing education in the field of STD/HIV prevention in an ever-changing health care environment.

Chlamydia Testing in 1999

The Division of Sexually Transmitted Disease (STD) Prevention has, with support from the federal Centers for Disease Control and Prevention (CDC), instituted a program of intensified chlamydia screening. Since July 1996, the STD Lab of the State Laboratory Institute has provided screening of women seen in nine family planning clinics, two Department of Youth Services secured facilities, two county jails, one homeless shelter and two drop-in HIV service centers. In addition, testing of men in almost all of the STD clinics has increased. The proportion of tests with positive results ranges from 4% in some family planning clinics to 12% in DYS secure facilities. Overall, there has been a 14% increase in the number of cases of chlamydia reported in 1998 compared to 1997, and an 8% increase in the number of cases thus far in 1999 compared to 1998.

STD and HIV Interactions Highlighted in Meetings

A series of six regional meetings was held this autumn to highlight the inter-relationships between HIV and "the other" STDs and begin exploring ways to link categorical prevention activities. Speakers and facilitators from DPH's HIV/AIDS Bureau and Division of STD Prevention combined lectures, panels and small group discussions to: 1)review why STD prevention is important to HIV prevention; 2) describe STD clinical features; 3) outline STD prevention and treatment resources; 4) explain what happens at an STD clinic visit; 5) describe and explain the process and philosophy of partner services; and 6) discuss STD/HIV service integration. The audiences were managers of counseling and testing, prevention and education programs. Evaluations will help shape future initiatives and training. The goal is to increase understanding of respective services and facilitate greater coordination.

TB

Every case was a contact

Contact investigations are important for identifying patients who have recently acquired latent TB infection, who are at greatest risk of progressing to active disease. Latent TB infection (asymptomatic, formerly referred to as "TB infection"), is acquired when contacts become infected with *M. tuberculosis* from an exposure to an infectious TB case. Contacts who are successfully treated for latent TB infection will not become future cases. A designated public health nurse in the town/city in which the TB case resides is responsible, as the direct case manager, for identifying contacts exposed to infectious cases and ensuring these contacts are evaluated and treated. Nurses and epidemiologists from the Division of TB Prevention and Control are available to advise and assist local public health nurses in this process. Susan Logan and Kathy Hendricks manage the TB contact program (Telephone number 617-983-6970).

The local public health nurse plays a critical role in preventing and controlling TB in Massachusetts. The nurse makes important decisions during a contact investigation**,** for instance, when to start the investigation (sputum smear-positive cases are more urgent), how to prioritize based on the risk of transmission (e.g. the infectiousness of the case and susceptibility of contacts) and how to conduct the investigation systematically. Good interviewing techniques, including sensitivity and cultural competence; the ability to provide education and assess the patient's comprehension; and analytical skills to determine when to expand the investigation will help ensure success. The nurse may be required to ensure immediate evaluation and treatment for some contacts, such as, small children and immunosuppressed people, who are at higher risk of progressing to disease if they acquire latent TB infection.

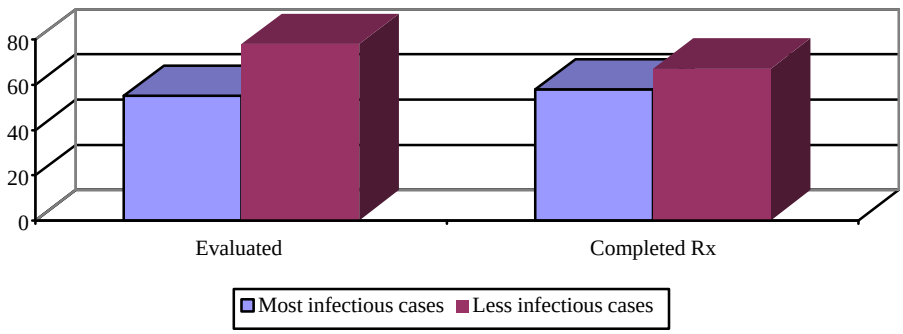
Collaboration and sharing of resources are necessary in contact investigations. For instance, if a TB patient exposed classmates, the school nurse may combine efforts with the local public health nurse to complete the investigation. The local public health nurse may coordinate efforts with other health departments to locate and treat contacts living outside the community. Teamwork and good communication among all parties involved are crucial to success.

The Division collects and maintains records on all contacts of infectious cases in Massachusetts, and an annual contact report is submitted to the CDC. The CDC has 3 objectives related to contacts that TB programs must strive to achieve: 1) 90% of sputum smear-positive cases will have contacts identified, 2) 95% of contacts to sputum smear-positive cases will be evaluated, and 3) at least 85% of the infected contacts will complete treatment of latent TB infection.

- Contacts were identified for 99% of Massachusetts's cases in 1998, exceeding the CDC objective.
- Only 549 of 992 (55%) contacts of patients with the most infectious form of TB were appropriately evaluated. (see Figure 1). These evaluation rates were better for contacts of less infectious cases.
- Latent TB infection rates were, as expected, higher in contacts exposed to patients with the most infectious form of TB (25%) compared to those exposed to patients with less infectious TB (9%). Ideally, we should focus on identifying and evaluating the contacts of the most infectious cases.
- Figure 1 also depicts poor completion of treatment rates among contacts with latent TB infection. Overall only 61% of contacts with latent TB infection completed treatment. Fifty-eight percent of contacts to the most infectious cases and 67% of contacts to less infectious cases completed treatment.

Division staff have implemented the following strategies to improve evaluation and completion of treatment rates of contacts: 1) a registry to track the status of contacts has been developed 2) contact management has been incorporated into monthly case reviews and quarterly cohort reviews, and 3) line-listings of contacts due for their follow-up skin tests are being sent to the local public health nurse regularly. We are currently developing several tools (e.g. provider and patient educational materials) that will aid local public health nurses in contact investigations and improve evaluation and completion of treatment rates. A contact investigation workshop has been included in the regional TB updates and a 1-day contact investigation course will be offered regionally to local health department nurses.

Figure 1: Contacts evaluated and completed treatment for latent TB infection, Massachusetts (not includingBoston), 1998



TB Update: Central and Western Region

Tuberculosis Surveillance Area (TSA) 1
Nurse: Carol Cahill, RN
Western Region Office, Northampton
Tel: (413) 586-7525

Clinical Services. TSA1 is comprised of communities in the Western and Central regions in Massachusetts. The TB Division funds 7 TB clinics in this largely rural catchment area. These clinics are located in high-risk communities. *A listing of the clinics in the area can be obtained from the Western Regional Office.*

Worcester is the largest city in TSA1. The Getchell/Ward Tuberculosis Clinic is held at Family Health Services, University of Massachusetts Memorial Healthcare City Campus, 26 Queen St., Worcester (508-860-7700). Dr. Jennifer Daly, from the Division of Infectious Diseases and Immunology at the University of Massachusetts Medical Center, serves as the primary clinic physician. Jean Ellis, RN is the clinic nurse. The weekly clinic hours are Tuesdays 7:30 AM to 5:00 PM, and Wednesdays and Thursdays 8:00 AM to 3:30 PM. The Clinic physician is present on Wednesday mornings.

The Worcester Health Department has a strong relationship with the Getchell/Ward TB Clinic. Public Health nurses help staff the clinic. Shirley Pisarski, RN recently retired after 31 years with the Health Department and ten years with the TB Clinic. We wish her well and thank her for her dedication, and welcome Mary Corron, RN who will replace Ms. Pisarski.

The Worcester Health Department and TB Clinic staff collaborate in screening, suspect-case work up, TB case management and the initiation and completion of treatment for latent TB infection. The following Department of Public Health Outreach Educators are available in the area: Wally Rivera (Spanish), Hoang Kim Tran (Vietnamese) and Astrit Seiti (Albanian Kosovar).

Epidemiology: There were 39 cases of active TB in 1998 in TSA 1. Worcester and Springfield each had 8 cases. The remaining 23 cases resided in 15 communities. In 1997, 38 cases of active TB were documented in TSA 1.

New recommendations "*Targeted Tuberculin Testing and Treatment of Latent TB Infection*" will be published in the spring of 2000.

You be the epi

You are the school nurse at an elementary school. Just before lunchtime on the first day of school, a kindergartner with a rash is brought to your office. The rash is maculopapular and vesicular with about 30 lesions, and you find that the boy has a temperature of 102°F. On examining the child's immunization records, you discover that he received DTaP, polio, MMR and varicella vaccines one week ago. You call his father to pick him up and learn that in the morning his father dropped him off at the door leading from the playground directly into the classroom.

The kindergarten teacher is three months pregnant, from Jamaica, and not sure whether she has had chickenpox. There are 17 other children in the kindergarten class. Because it's the first day of school, not all the immunization records are in the students' files yet. Five children do have documentation of having received both MMR (two doses) and varicella vaccines, four have physician-certified documentation of having had chickenpox disease, but eight have nothing health-related in their files yet.

How do you determine what disease this is and the risk to others? What control measures must be implemented?

Analysis

Since there are some vesicles, this is likely some form of chickenpox. The timing of rash onset one week after vaccination makes it a bit difficult to tell whether or not the rash is simply a side effect of vaccination, a condition not considered to be significantly infectious. However, the fact that the boy has a fever and more than 20 lesions makes it unlikely to be a vaccine effect—he probably was exposed to chickenpox prior to vaccination. He should be excluded from school until all the lesions have crusted over, usually by the fifth day.

The teacher must be considered susceptible. (In addition to the lack of immunization or disease history, people from the tropics are more likely to be susceptible to chickenpox than are adults from temperate zones.) She should be referred to her obstetrician, who should draw a blood for a varicella titer and strongly consider administering VZIG. If given within 4 days (96 hours) of exposure, VZIG can attenuate disease and decrease the risk of complications of chickenpox in the teacher (although it is not known whether it will prevent congenital varicella syndrome in the fetus). You should tell the teacher that VZIG can extend the incubation period of chickenpox from 10-21 days to $\geq$ 28 days, and both you and the teacher should watch for symptoms for at least one month after exposure.

New data indicate that varicella vaccination can prevent illness or modify its severity if given within 3 days (and possibly up to 5 days) of exposure. Therefore, the children without documentation of immunity or immunization should receive vaccine as soon as possible. You should send letters, chickenpox fact sheets, and vaccine information statements home with them today, as well as arranging to talk with parents/guardians at pick-up time.

It appears that no others were exposed. No exclusions are required other than of the case and any subsequent ones. Surveillance should continue for 28 days (extended from 21 because of VZIG) after the last exposure.

Refugee and Immigrant Health

Refugee Health Conference

On October 21, 1999, the Refugee and Immigrant Health Program held its third medical education conference, *Refugee Family Function and Psychosocial Assessment in Primary Care*, co-sponsored with the Massachusetts Medical Society. Seventy people from a wide range of care settings attended. Physicians and staff from refugee health assessment clinical sites, psychologists, social workers and case managers from refugee resettlement agencies heard speakers of local and national renown.

Increasingly, primary care providers serving refugees must assess and meet a broad range of need. At the same time, the sociocultural diversity of refugee arrivals and their distinct histories of flight and trauma present a great challenge. This year's program focused on addressing refugee psychosocial problems in community settings. Conference sessions included "Dynamics of Culture and the Refugee Experience: Implications for Medical Practitioners"; "Resiliency after Psychological Trauma and Opportunities for Primary Care Interventions"; and "Assessment of Traumatized Families in Primary Care Settings." Speakers incorporated case discussions, including those of a traumatized refugee from the Democratic Republic of Congo and a Kosovar adolescent refugee suffering from severe post-traumatic stress disorder.

Additional presentations focused on the extent of and misconceptions about domestic violence in refugee communities and the Department of Mental Health's Western Massachusetts experience developing strategies to increase access to multicultural mental health services for refugees. The conference was well received and laid the groundwork for future conference themes and organization.

Somali Youth Program

Somalia is a country on the Horn of Africa (the east coast). The Somali people are commonly distinguished by the tribe to which they belong. Due to colonization, the more educated may speak Italian in addition to Somali and Arabic. Most Somali are Muslim and learn their Arabic from the Q'uran. It is common practice for women to wear a "hajib" (scarf) to cover the head and to wear a sari. Those who are Muslim eat "halal" (kosher) foods.

Over 1,000 Somali refugees have resettled in Massachusetts since 1992. Most have come from camps in Kenya where many lived for over three years and often much longer. As displaced persons, they arrive to the US with many health concerns, related to both physical and mental well being. Somali youth have particular needs that result, in part, from school having been interrupted by war and camp stays. Some arrived with no school experience, unable to read and write in their own language.

The Somali Youth Program was initiated in 1996 with funding from the federal Office of Refugee Resettlement to address many of these issues with educational, health, social, and recreational services. The program is a collaborative of the International Rescue Committee (lead

agency), the Refugee & Immigrant Health Program and the Somali Women and Children's Association. The program is located at English High School in Boston.

The Refugee and Immigrant Health Program provides technical support to the program's Somali Health Educator. She coordinates health workshops and offers drop-in hours and tutoring services. The health workshops are designed to engage youth. They offer information and opportunities to discuss their own experiences, knowledge from home and new challenges in the US. Differences in culture and what the youth believe to be their immediate needs are also discussed, helping to address mental well being. Topics have included universal precautions, HIV/AIDS, tobacco prevention, substance abuse prevention, and violence prevention.

Violence prevention was an early objective of the program. Somali refugee youth, caught between two cultures, were seen as being at risk for alienation and violence. The Health Educator has linked Somali youth with violence prevention training, including that facilitated by the Prevention Center in Boston. Through the training and ongoing discussion, youth have been able to address issues related to feeling threatened. Skill building has focused on strategies to avoid dangerous situations and to safely negotiate a way out of such situations.

As Somali youth are exposed to American culture and media, some healthy behaviors may be adopted. Although smoking is not common in Somali culture, some teens have started smoking, responding to the perceived need to be accepted or just to be "phat" (cool). Tobacco prevention workshops help the youth grapple with marketing, image and peer pressures while also learning that it is an unhealthy behavior.

The drop-in hours are a great asset to Somali youth. They have many concerns that they are not comfortable speaking about in a foreign language and with a stranger from another culture. The Health Educator can provide culturally competent assistance, keeping in mind the Somali and American cultures as well as the standards of the school. Serving as liaisons, all Somali Youth Program Somali staff provide school personnel with information about Somali culture to prevent misunderstandings or misperceptions regarding behavior.

Program staff assist youth to enroll in area summer programs, including mainstream and refugee-specific programs. Other youth have begun to build work experience through summer jobs. Program summer activities are most often recreational and social, building on activities that help foster positive, healthy relationships amongst peers while opening new horizons.

The Somali Youth Program has been integral to newly arrived Somali youth's understanding of American society and acculturation. Teachers and staff have seen marked improvements in their educational and social achievements.

Save the dates

Epidemiology and Prevention of Vaccine-Preventable Diseases
March 23 & 30, April 6 & 13, 2000, 12:00-3:30 PM. This four-part satellite broadcast will provide a comprehensive overview of vaccines commonly used in the United States. Vaccine recommendations change frequently. CME credit, CNE credit and CEUs are available for completing the entire series. State Laboratory, Jamaica Plain.

Module 1: Principles of Vaccination, General Recommendations and Immunization Strategies.
Module 2: Diphtheria, Tetanus, Pertussis, Poliomyelitis and an update concerning Rotavirus and the vaccine situation.
Module 3: Measles, Mumps, Rubella and Varicella.
Module 4: Hepatitis B, Haemophilus influenzae type b, Influenza and Pneumococcal Disease.

The course uses, as its required and reference text, The PINK BOOK. The revised 6th edition will be available in March 2000, in time for the course. It will be sent to you, once you purchase it from the Public Health Foundation at http://bookstore.phf.org/ for $25.00.

For more information, call Walter Lasota at (617) 983-6834.

5th MIAP Skills Building Conference: May 18, 2000, 9:00 AM – 4:30 PM. This conference will be held at the Holiday Inn, Worcester. For more information call MIAP at (617) 451-0049 x806.

Save the dates Continued:

Antibiotic Resistance: A Global Problem with Local Solutions
May 2, 2000, 8:30 AM – 5:00 PM.
This conference will be held at the Sheraton Needham Hotel, Needham, MA. The conference is sponsored by the Alliance for the Prudent Use of Antibiotics, the American Association for World Health, the Massachusetts Medical Society, the MA Department of Public Health and a number of other organizations. CMEs will be offered. For more information call: Jacki Dooley at (617) 983-6559.

STD/HIV Prevention Training Center of New England
The STD/HIV Prevention Training Center of New England (PTC) has scheduled the following trainings between March and May of 2000:

3-Day Clinical STD Trainings for Clinicians: March 27-29; April 22-24; May 22-24
Brightfield Microscopy: April 26
Stained Smears: April 26
National Satellite Broadcast of "STD Grand Rounds: Genital Dermatology"; March 9

For more information about these and other PTC activities, call Wendy Hylton at (617) 983-6945.

Regional TB Update Conference
May 28, 2000, 9:00 AM – 3:00 PM.
This conference will be held in the Southeast Region, location TBA. For more information call the Division of TB Prevention and Control at (617) 983-6970.

Adult Immunization Conference:
May 1, 2000: For more information, contact Lorraine LeClerc at MassPRO, (781) 890-0011 x276.

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